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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,399	06/16/2006	Peter David Armstrong	DC-5067 PCT 1	7248
8131 7590 07/24/2008 MCKELLAR IP LAW, PLLC 784 SOUTH POSEYVILLE ROAD MIDLAND, MI 48640				
EXAMINER				
MATTHEWS, TERRELL HOWARD				
ART UNIT		PAPER NUMBER		
3653				
MAIL DATE		DELIVERY MODE		
07/24/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/559,399

**Applicant(s)**

ARMSTRONG ET AL.

**Examiner**

Terrell H. Matthews

**Art Unit**

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.  
5) ☒ Claim(s) 9 and 10 is/are allowed.  
6) ☒ Claim(s) 1-8 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CIS)  
Paper No(s)/Mail Date 12/05/2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franzreb (US-2006/0016732) in view of Kotlyar (US-6299174).

Referring to claims 1-8, Franzreb discloses a "High Gradient Magnetic Separator". See Figs. 1- 5 and respective portions of the specification. Franzreb further discloses a vibrating magnetic separator having vibrating components and stationary components wherein the vibrating magnetic separator comprises in combination an electromagnet, a pressure vessel (5) having an inlet (4) and an outlet (12), said pressure vessel being in the electromagnet; a ferromagnetic matrix, a vibrator for vibrating the ferromagnetic matrix said vibrator moving in a vertical direction. Franzreb further discloses wherein the means of applying vibration to the matrix is a moveable shaft (8) connecting the vibrator and the matrix and wherein there is at least one linear vibrator (See at least sect. 0024-0030 & at least figs. 1-3). Franzreb does not disclose a pressure retaining flexible bellows to seal the process contents from leaking to the atmosphere and to isolate the vibrating components from the stationary components. Kotlyar discloses a "Mechanical Seal Assembly". See Figs. 1- 4 and respective portions

of the specification. Kotlyar further discloses a pressure retaining flexible bellows (41) to seal process contents and to isolate the vibrating components from the stationary components (See at least Fig. 2). Kotlyar further discloses wherein the flexible bellows has at least two plies and failure detection means (See at least Col. 4 l. 20 - Col. 5 l. 26, Col. 5 l. 63 - Col. 6 l. 13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the apparatus of Franzreb to include the teachings of Kotlyar wherein the mechanical assembly comprising pressure retaining flexible bellows were used to seal the process contents in the vessel so that harmful and dangerous chemicals and contents could not leak out form the vessel during separation and operation of the magnetic separator.

#### ***Allowable Subject Matter***

Claims 9-10 are allowed.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrell H. Matthews whose telephone number is (571)272-5929. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/  
Supervisory Patent Examiner, Art  
Unit 3653

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